WO 2005/026199 PCT/EP2004/052169

43

CLAIMS:

- 1. Piroplasmid protein, characterised in that said protein comprises an amino acid sequence having a similarity of at least 70% with the amino acid sequence depicted in SEQ ID NO: 2 or 4, or an immunogenic fragment of said protein.
- Piroplasmid protein, characterised in that said protein comprises an amino acid sequence having a similarity of at least 70% with the amino acid sequence depicted in SEQ ID NO: 6 or 8, or an immunogenic fragment of said protein.
- 3. Piroplasmid protein, characterised in that said protein comprises an amino acid sequence having a similarity of at least 70% with the amino acid sequence depicted in SEQ ID NO: 10, or an immunogenic fragment of said protein.
- 4. Nucleic acid, characterised in that said nucleic acid encodes a protein according to claim 1, or an immunogenic fragment of said protein.
- 5. Nucleic acid, characterised in that said nucleic acid encodes a protein according to claim 2, or an immunogenic fragment of said protein.
- 6. Nucleic acid, characterised in that said nucleic acid encodes a protein according to claim 3, or an immunogenic fragment of said protein.
- 7. cDNA fragment comprising a nucleic acid according to one or more of the claims 4 6.
- 8. Recombinant DNA molecule comprising a nucleic acid according to one or more of the claims 4 - 6 or a cDNA fragment according to claim 7, said nucleic acid or said cDNA fragment being under the control of a functionally linked promoter.
- 9. Live recombinant carrier comprising a nucleic acid according to one or more of the claims 4 6, a cDNA fragment according to claim 7, said nucleic acid or said cDNA fragment being under the control of a functionally linked promoter, or a recombinant DNA molecule according to claim 8.
- 10. Host cell comprising a nucleic acid according to one or more of the claims 4 6, a cDNA fragment according to claim 7, said nucleic acid or said cDNA fragment being

WO 2005/026199 PCT/EP2004/052169

44

- under the control of a functionally linked promoter, a recombinant DNA molecule according to claim 8, or a live recombinant carrier according to claim 9.
- 11. Vaccine comprising a protein according to one or more of the claims 1 3 or an immunogenic fragment of said protein, a nucleic acid according to one or more of the claims 4 6, a cDNA fragment according to claim 7, a recombinant DNA molecule according to claim 8, a live recombinant carrier according to claim 9, or a host cell according to claim 10, or a combination thereof, and a pharmaceutically acceptable carrier.
- 12. Vaccine according to claim 11, characterised in that said vaccine comprises an adjuvant.
- 13. Vaccine according to one or more of the claims 11 12, characterised in that said vaccine comprises an additional immunoactive component or a nucleic acid encoding said additional immunoactive component.
- 14. Vaccine, characterised in that said vaccine comprises an antibody against a protein according to one or more of the claims 1 3 or an antibody against an immunogenic fragment of said protein, or a combination thereof, and a pharmaceutically acceptable carrier.
- 15. Method for the preparation of a vaccine according to claim 11, said method comprising the admixing of a protein according to one or more of the claims 1 3, or an immunogenic fragment of said protein, a nucleic acid according to one or more of the claims 4 6, a cDNA fragment according to claim 7, a recombinant DNA molecule according to claim 8, a live recombinant carrier according to claim 9, or a host cell according to claim 10, or a combination thereof, and a pharmaceutically acceptable carrier.
- 16. Use of a protein according to one or more of the claims 1 3 or an immunogenic fragment of said protein for the manufacture of a vaccine for prophylactic or therapeutic treatment of an infection or its clinical signs caused by a Piroplasmid organism.
- 17. Use of a nucleic acid sequence according to one or more of the claims 4 6, a cDNA fragment according to claim 7, a recombinant DNA molecule according to claim 8, a live recombinant carrier according to claim 9, or a host cell according to claim 10 for the

WO 2005/026199 PCT/EP2004/052169

45

manufacture of a vaccine for prophylactic or therapeutic treatment of an infection or its clinical signs caused by a Piroplasmid organism.

- 18. Diagnostic test for the detection of a nucleic acid associated with a Piroplasmid organism, characterised in that the test comprises a nucleic acid, said nucleic acid being at least 70 % similar to the nucleic acid sequence depicted in SEQ ID NO: 1, 3, 5, 7, or 9 or a nucleic acid that is complementary to said nucleic acid, wherein either of the nucleic acids have a length of at least 15 nucleotides.
- 19. Diagnostic test for the detection of antibodies against a Piroplasmid organism, characterised in that said test comprises a protein according to one or more of the claims 1 3, or an immunogenic fragment of said protein, or a combination thereof.
- 20. Diagnostic test for the detection of antigenic material from a Piroplasmid organism, characterised in that said test comprises an antibody against a protein according to one or more of the claims 1 3 or an antibody against an immunogenic fragment of said protein, or a combination thereof.